

STUDIES IN THE HELIANTHEAE (ASTERACEAE). I

A NEW SPECIES OF RHYSOLEPIS.

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Blake described the genus Rhysolepis in 1917 to include two species from Mexico having large rather clasping paleae and having a Viguiera type pappus. The genus was placed near Sclerocarpus because of the specialized paleae but Blake considered relationship was closer to Viguiera from which the species were transferred. The two original species were easily distinguished by differences of leaf insertion, leaf pubescence and phyllary length.

A specimen of Rhysolepis collected in October 1961 in southern Michoacan shows certain combinations of the characteristics of the two original species and shows a few distinctive microscopic features. The material is recognized here as a third, previously undescribed species. The new species, Rhysolepis kingii, is most like R. palmeri (A.Gray) Blake of northern Michoacan and Jalisco by the opposite leaves, the glabrous base of the ray flowers, the shorter setulae on the bases of the disk flowers, the nearly glabrous achenes and by the continuous series of squamulae on each side of the pappus. The new species is most like R. morelensis (Greenm.) Blake by the yellow stems and branches, the dense tomentum on the under-surface of the leaves, the shorter reflexed tips of the phyllaries, the more broadly truncate and lacerate tips of the paleae and the lack of UV absorption nectar guides on the basal halves of the ray flowers. A few apparently unique features of the new species are the very short basal internodes of the main branches, the smaller disk corollas, and the glands on the outer surfaces of the corolla lobes.

The anther appendages of Rhysolepis bear rather distinctive glands and a few short hairs. The glands seem unusually fragile with very weak bases. The enlarged portions of the glands consist of many tiers of very short broad cells in two rows. In material of R. palmeri and R. kingii the apical pair of cells of the glands is much larger and thinner walled. The apical pair of cells in R. morelensis is not enlarged in the material seen, but this may reflect a stage of development.

The three species of Rhysolepis can be distinguished by the following key.

1. Leaves alternate R. morelensis
1. Leaves opposite 2
2. Leaves finely and densely tomentose below; stems and branches yellow; phyllaries with reflexed tips scarcely longer than wide R. kingii
2. Leaves not finely tomentose below; stems and branches partly redish; phyllaries with very long reflexed tips .
R. palmeri

Rhysolepis kingii H. Robinson, sp. nov.

Frutices erecti 2-3 m alti multo ramosi. Caules teretes sublaeves flavescentes minute puberuli, internodiis basilaribus ramorum perbrevis. Folia opposita breviter petiolata, petiolis 5-10 mm longis, laminis 4-9 cm long 1.5-3.5 cm latis oblongo-ovatis acutis margine subserrulatis base rotundatis distincte trinervatis supra valde scabrellis subtus dense tomentellis in nervis scabrellis. Inflorescentiae laxae corymbosae, pedicellis 1.5-3.5 cm longis. Capitula 1 cm alta et 1 cm lata. Involucri squamae ca. 5-seriatae 2-7 mm longae oblongae breviter acutae extus inferne subglabrae, in parte reflexo breves nigrae scabrellae; radiis ca. 10-12 flavis ca. 1.5 mm longis inferne glabris; paleis ca. 4 mm longis ad apicem late truncatis laceratis; corollae disci ca. 5 mm longae inferne perbrevis scabrellae in lobis extus breviter scabrellae glanduliferae et inferne piliferae; thecae antherarum ca. 2 mm longae; achaenia ca. 2.5 mm longa subglabra ad apicem lateraliter multisquamulifera. Grana pollinis ca. 25 μ diam.

Type: MEXICO: Michoacan: West-facing slopes of Sierra Madre del Sur, ca. 32 kms north of Playa Azul (region of Los Encinos); vegetation mixed tropical deciduous forest. Elev. 1200-1500 ft. Abundant shrubs 2-3 meters tall, open sun, shaded areas. Robert Merrill King and Thomas R. Soderstrom 4972 (Holotype, US).

The species is named for the senior collector who called the collection to the author's attention and who pointed out some of the distinguishing characteristics.

Reference

Blake, S. F. 1917. III. New and noteworthy Compositae, chiefly Mexican. Contrib. Gray Herb. n.s. 52: 16-59.